

**REMARKS**

Favorable reconsideration and allowance of the subject application are respectfully requested in view of the following remarks.

**Summary of the Office Action**

Claims 21-37 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

Claims 1, 3-5, 7-10, and 21-28 stand rejected under 35 U.S.C. §102(e) as being anticipated by *Kim et al.* (U.S. Patent No. 6,100,954).

Claims 11-15, 17-20, and 29-37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Applicant's Figures 1 and 2* in view of *Kim et al.*

**Summary of the Response to the Office Action**

A Submission of Formal Drawings is submitted herewith. Applicant has proposed to amend claims 21 and 29. Accordingly, claims 1, 3-5, 7-15, and 17-37 are currently pending

**Claim Rejections Under 35 U.S.C. §112, Second Paragraph**

Claims 21-37 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Specifically, the Final Office Action asserts that no function is specified by the word(s) preceding "means," as recited in claims 21 and 29. Accordingly, Applicant has amended independent claims 21 and 29 by replacing "gate means" with --a gate arrangement-- to address the Examiner's concerns. Thus, Applicant respectfully submits that claims 21-37, as amended, fully comply with the requirements of 35 U.S.C. § 112, second paragraph. Accordingly, the Examiner's consideration and withdrawal of the rejection of claims 21-37 under 35 U.S.C. §112, second paragraph are respectfully requested.

**Claim Rejections Under 35 U.S.C. §102(e)**

Claims 1, 3-5, 7-10, and 21-28 stand rejected under 35 U.S.C. §102(e) as being anticipated by *Kim et al.* This rejection is respectfully traversed for at least the following reasons.

Applicant respectfully submits that *Kim et al.* does not teach or suggest every feature of at least independent claims 1 and 21. For instance, *Kim et al.* fails to teach or suggest at least the claimed combinations including “an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film” and “a pair of opposing gate electrodes sandwiching the insulative film and the organic semiconductor layer,” as set forth in independent claim 1. Further, *Kim et al.* fails to teach or suggest at least the claimed combination including “an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film; a pair of intermediate electrodes disposed within the organic semiconductor layer so as to confront each other; and a gate arrangement for applying an electric field to the organic semiconductor layer between the intermediate electrodes,” as set forth in independent claim 21, as amended.

The Final Office Action appears to assert that the protection film (159) made of an organic material as taught by *Kim et al.* corresponds to the organic semiconductor layer as set forth in independent claims 1, 11, 21 and 29. In addition, the Final Office Action asserts that the claimed functional properties of the organic semiconductor layer are not positive limitations. See Paragraph 12 of the Final Office Action. Furthermore, the Final Office Action asserts that “where the Patent Office has reason to believe a functional limitation asserted to be critical for establishing novelty in the claimed subject matter, may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter

shown to be in prior art does not possess the characteristic relied on.” Paragraph 24 of the Final Office Action.

Applicant respectfully disagrees with the assertion that the claims do not positively recite an organic semiconductor layer. Furthermore, Applicant respectfully submits that *Kim et al.* does not possess the characteristics relied on, in accordance with Paragraph 24 of the Final Office Action. For example, *Kim et al.* explicitly distinguishes the protection film (159) from a semiconductor layer as set forth in independent claims 1, 11, 21 and 29. For instance, at column 12, lines 4-8, *Kim et al.* states “[w]hen an organic material, as in this invention, is used as a gate insulation layer or protection film, the organic material comes in contact with a semiconductor material in which a channel layer of the TFT is formed.” Thus, it is respectfully submitted that the organic layer (159) as taught by *Kim et al.* cannot read on the semiconductor layer as recited in independent claims 1, 11, 21 and 29.

In addition, *Kim et al.* specifically teaches that the protection film (159) does not have functional properties of an organic semiconductor layer. For example, at column 18, lines 63-66, *Kim et al.* recognizes problems of detachment and charge trap may occur at the interface between a semiconductor layer and organic protection film. That is, the “electronics remain on the surface of the semiconductor layer.” Column 12, lines 55-57 of *Kim et al.* Since the electronics are trapped at the surface of the semiconductor layer, *Kim et al.* teaches that the electronics cannot be transported through the protection film (159). Therefore, it is respectfully submitted that the protection film as taught by *Kim et al.* does not have any transport property.

Hence, it is respectfully submitted that *Kim et al.* fails to teach or suggest at least the claimed combinations including “an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film” and “a pair of opposing gate electrodes

sandwiching the insulative film and the organic semiconductor layer,” as set forth in independent claim 1, and the claimed combination including “an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film; a pair of intermediate electrodes disposed within the organic semiconductor layer so as to confront each other; and a gate arrangement for applying an electric field to the organic semiconductor layer between the intermediate electrodes,” as set forth in independent claim 21, as amended.

MPEP § 2131 states “[t]o anticipate a claim, the reference must teach every element of the claim.” Applicant respectfully submits that since *Kim et al.* does not teach or suggest all of the features of independent claims 1 and 21, *Kim et al.* does not anticipate claims 1 and 21. Further, since claims 3-5, 7-10, and 22-28 depend from claims 1 and 21, respectively, it is respectfully submitted that *Kim et al.* also does not anticipate claims 3-5, 7-10, and 22-28. Accordingly, withdrawal of the rejection of claims 1, 3-5, 7-10, and 21-28 under 35 U.S.C. §102(e) is respectfully requested.

**Claim Rejections Under 35 U.S.C. §103(a)**

Claims 11-15, 17-20, and 29-37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Applicant's Figures 1 and 2* in view of *Kim et al.* This rejection is respectfully traversed.

It is respectfully submitted that *Applicant's Figures 1 and 2*, to the extent it is alleged as prior art, fail to teach or suggest at least the claimed combination including “an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film” and “a pair of opposing gate electrodes sandwiching the insulative film and the organic semiconductor layer,” as set forth in independent claim 11. Further, *Kim et al.* fails to teach or suggest at least the claimed combination including “an organic semiconductor layer made of an

organic semiconductor and mounded on the insulative film; a pair of intermediate electrodes disposed within the organic semiconductor layer so as to confront each other; and a gate arrangement for applying an electric field to the organic semiconductor layer between the intermediate electrodes,” as set forth in independent claim 29, as amended.

Further, in light of the foregoing arguments with respect to the 35 U.S.C. §102(e) rejections, it is respectfully submitted that *Kim et al.* also fails to teach or suggest at least the claimed combinations including “an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film” and “a pair of opposing gate electrodes sandwiching the insulative film and the organic semiconductor layer,” as set forth in independent claim 11. Further, *Kim et al.* fails to teach or suggest at least the claimed combination including “an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film; a pair of intermediate electrodes disposed within the organic semiconductor layer so as to confront each other; and a gate arrangement for applying an electric field to the organic semiconductor layer between the intermediate electrodes,” as set forth in independent claim 29, as amended.

Accordingly, since *Applicant's Figures 1 and 2* and *Kim et al.*, whether taken singly or in combination, fail to teach or suggest each and every element set forth in independent claims 11 and 29, it is respectfully submitted that *Applicant's Figures 1 and 2* in view of *Kim et al.* does not render claims 11 and 29 unpatentable. Since claims 12-15, 17-20, and 30-37 depend from claims 11 and 29, it is respectfully submitted that *Applicant's Figures 1 and 2* in view of *Kim et al.* also does not render claims 12-15, 17-20, and 30-37 unpatentable. Accordingly, withdrawal of the rejection of claims 11-15, 17-20, and 29-37 under 35 U.S.C. §103(a) is respectfully requested.

**Conclusion**

In view of the foregoing, Applicant respectfully requests the entry of this Amendment to place the application in clear condition for allowance or, in alternative, in better form for appeal. Applicant also respectfully requests the Examiner's reconsideration and reexamination of the application and the timely allowance of the pending claims. Should there remain any questions or comments regarding this response or the application in general, the Examiner is urged to contact the undersigned at the number listed below.


Attached hereto is a marked-up version of the changes made by the current amendment. The attachment is captioned "Version with markings to show changes made."

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

Claims 21 and 29 have been proposed to be amended as follows.

21. (Amended) An organic thin film switching element comprising:

an insulative film;

an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film;

a pair of intermediate electrodes disposed within the organic semiconductor layer so as to confront each other; and

a gate arrangement [gate means] for applying an electric field to the organic semiconductor layer between the intermediate electrodes.

29. (Amended) An organic electroluminescence element display device having a display array formed of a plurality of light emitting sections, comprising:

a substrate having a plurality of first display electrodes formed on a surface in correspondence to the light emitting sections;

an organic material layer formed on each of the first display electrodes and including at least one organic electroluminescence material layer capable of emitting light by injecting electrons or holes thereinto;

a second display electrode formed in common on the organic material layer; and

an organic thin film switching element formed on the substrate and connected to at least one of the first and second display electrodes, the organic thin film switching element including:

an insulative film;

an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film;

a pair of intermediate electrodes disposed within the organic semiconductor layer so as to confront each other; and

a gate arrangement [gate means] for applying an electric field to the organic semiconductor layer between the intermediate electrodes.